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# The impact of IFRS 9 and IFRS 7 on liquidity in banks: Theoretical aspects

Cipullo Nadia[a]*, Vinciguerra Rosa[b]

[a] *Link Campus University, Via Nomentana 335, 00162 – Rome, Italy*
[b] *Seconda Università di Napoli, C.so Gran Priorato di Malta, 81043 – Capua, Italy*

**Abstract**

The conviction that capital markets could always satisfy *Liquidity* needs of agents has been strongly questioned during recent years. One consequence has been the IASB introducing IFRS 9, as substitute of IAS 39, in order to improve mechanisms of classification and measurement of *Financial Instruments*, deemed as one of the main causes triggering the financial crisis. Despite the effort of the International Board to introduce provisions able to assure *relevant and useful information for the assessment of the amounts, timing and uncertainty of the entity's future cash flows*, there are some critical points associated with those requirements focused in the paper. We first introduced concepts of *Liquidity* and of *Liquidity Risk*, instrumental to a critical study of IFRS 9 insides. We then enriched the analysis, investigating IFRS 7 contents (just for what regards disclosure on *Liquidity Risk*), looking for information that could overcome IFRS 9 limits. According to our conclusions, IASB should think about the chance, among others, to pay more attention to the *Business Model pattern* and to *behavioural liquidity characteristics* associated to financial instruments. To sum up, the study aimed at analyse the impact of accounting rules on liquidity in banks. As it is a topic poorly addressed, not only from the academic literature but also by professional bodies, it can be considered as an emerging field of research. This aspect can be considered as one of its strength points.


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* Corresponding author. Tel.: +39-331-795-8254.
*E-mail address:* n.cipullo@unilink.it


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## 1. Introduction

Market participants used to neglect the *Liquidity Risk* as, according to the prevailing idea, they could easily handle liquidity needs recurring to well-developed capital markets. This approach did not press Regulators to provide a common framework for *Liquidity Risk*; it was not even taken into consideration, as an autonomous risk, in the Basel II Framework (BCBS , 2004).

Recent crisis has:

- shown deficiencies of that approach and the effects the *Liquidity Risk* can produce on the stability of single banks and of the banking system as a whole;
- progressively revealed the need to manage the *Liquidity Risk* by establishing innovative operational approaches shared at a supranational level.

The evolution of the banking business (from an Originate To Hold model – OTH, to an Originate To Distribute model – OTD), while making the exposure to *Liquidity Risk* more complex, has not been matched by adequate changes in the banks' organization and management tools.

In this new scenario, an effective and efficient management of the *Liquidity Risk* may result in a significant competitive advantage for each intermediary, both from *the management* and *financial reporting perspectives*.

In both cases, provisions coming from International Authorities shape the information produced by banks. This is the reason why this research has focused, especially, on the *Liquidity Risk* as regulated by IASB standards. As IAS/IFRS lack any specific discipline concerning the *Liquidity Risk* (apart from minor requirements on its disclosure), the interest of the study is focused on both IFRS 7 - *Financial Instruments: Disclosures* and IFRS 9 - *Financial Instruments*.

The remainder of the paper is structured as follows. Section 2 frames the concept of *Liquidity* and defines its main components; Section 3 deepens issues related to the accounting discipline and underlines some critical points coming from this observation; Section 4 offers conclusions.

## 2. The liquidity risk

*Liquidity* (CSBS, 2010; AAA, 2000; BIS, 2008; Office of the Superintendent of Financial Institutions (Canada), 2012) is not an easy notion to define and does not have an univocal meaning. It is possible to refer to a *stock dimension*, which can be interpreted as the availability of cash or equivalents, as well as to a *dynamic one.* Regarding the latter, "*Liquidity represents the capacity to fulfil all payment obligations as and when they fall due [….] Since it is done in cash, liquidity relates to flows of cash only. Not being able to perform leads to a condition of illiquidity* (Duttweiler R., 2009)". Or, in a broader way, the concept must also take into account processes of growth of the company, that is the ability to fund new business transactions; according to this perspective "*Liquidity can be viewed as the essential resource that permits a company to replace its liabilities, meet contractual obligations, and fund growth, all at reasonable price, as and where needed* (Banks E., 2014)".

As a complex item (Matz L.M., 2011), Liquidity can be investigated paying attention to its components (Banks E., 2014):

- *Funding Liquidity*, that refers to liabilities (both short and long term) from which cash can be drawn;
- *Asset Liquidity*, that refers to the availability of assets which can be sold or pledged in order to obtain cash;
- *Liquidity Contingencies*, referring to future events that can impact on cash flows.

To complete the framing of this section, prior to introduce *Liquidity Risk*, is useful to know that *Risk*, meant in a negative way, is the possibility of incurring losses or reduced profits or something else disadvantageous (ICAEW , 2011; Knight F.H., 1921).

Each entity faces many types of risks: *operational* and *financial* ones. Latters are (Banks E., 2014): *Market Risk* (losses due to adverse movements in market prices); *Credit Risk* (losses due to uncertainty in a counterparty's ability to meet its financial obligations); *Liquidity Risk* (probability of not being liquid) (Duttweiler R., 2009; CIA, 1996). The latter, in particular, is the risk of losses arising from a lack of cash or its equivalents, as well as from the inability to obtain it and to meet expected and unexpected obligations.

Both *Market* and *Credit risk*, leading to a cash-flow shortfall, impact on *Liquidity Risk*.

From the foregoing points it can be assumed that, in theory, if a firm owns assets and liabilities well matched (in terms of duration) and if it can hold them until their maturity, it faces no *Liquidity Risk*: at these conditions, maturing assets will provide funds needed to repay liabilities as they come due. Such a model, however, is just an ideal and static one. Entities, especially financial institutions operating the maturity transformation, cannot satisfy above-mentioned conditions; moreover, they serve accounting estimates and must deal with unexpected events.

As a consequence *Liquidity Risk* is an exposure that every firm must consider and manage.

## 3. The influence of IASB discipline on liquidity risk in the banking sector

In order to assess and to manage *Liquidity Risk*, entities usually adopt some ratios and margins: the *Liquidity Gap* (Culp, 2001); the *Funding Ratio* (Matz L. & Neu P., 2007); the *Liquidity Coverage Ratio* (BCBS, 2013) and the *Net Stable Funding Ratio* (BCBS, 2010).

As these ratios are based on values of assets and liabilities, in particular of financial instruments, and on cash flows, information is to be collected from financial statements. For that reason, goals of this study are to verify the impact of accounting standards on a bank's *Liquidity* and to emphasize their main weak points. The attention will be focused on IASB contents: Conceptual Framework (IASB, 2010-A; FASB, 2010; IASB, 2013), IFRS 9 – *Financial Instruments* (IASB, 2010-B) and IFRS 7 – *Financial Instruments: Disclosure* (IASB, 2007), as the attention is on banks operating in Europe[c], liable to IASB standards

### *3.1. Conceptual framework*

Accounting standards should contribute to an establishment of *Liquidity Risk* management.

To this end, it would be desirable a definition of "*Liquidity*" and the production of information appropriate to accurately calculate *amounts* of future cash inflows and outflows and to truthfully estimate *times* in which they will occur.

Notwithstanding rules promoted by IASB could provide useful information regarding *Liquidity* facets of a bank, it lacks to define *Liquidity* and to pay attention to the *economic maturity* of certain items, which is important as well as their amounts.

After explanations of contents and limits of IASB Conceptual Framework, the next section will be dedicated to measurement issues.

### *3.2. IFRS 9 – Financial instruments*

As the activity of a bank is carried out according to the business model pattern (EFRAG, 2013-A), and as assets and liabilities are associated with future inflows and outflows, the expectation is that *carrying values* reflect both the business model strategy and the liquidity potential.

Despite IFRS 9 invokes the concept of *Business Model* in order to draw a distinction between financial assets to be measured at *Amortized Cost* and those to be measured at *Fair Value*, in practice it uses a mechanism of discrimination that clashes with it.

Indeed, the distinction between assets to be valued at *Amortized Cost* and at *Fair Value* is hooked to the "*frequency of sales*", rather than to the economic substance of the transaction. In reality, however, banks could have decided to sell financial assets not for trading reasons, but for "*rebalancing of a portfolio*" intended for cash flows purposes. If this is the case, IFRS 9 requirements will "result in a *Fair Value Through Other Comprehensive Income* classification for portfolios - *of financial assets* - which support *Amortized Cost* financial liabilities" (EBF, 2013).

Instead of relying on a *rule-based* "*frequency of sales*" as the distinguishing criteria, IFRS 9 should take in consideration a *principle-based* requirement, focused on "reasons for rebalancing" of portfolios, capturing the *portfolio-level view* and the broader relationship with Financial Liabilities. That is, regardless of the frequency of

sales, the attention should be focused on the *management intention*, supported by proper evidence, and a distinction should be made between the aims (EAPB, 2013):

- to *generate contractual cash flows*, with the *Amortized Cost* as the best criteria even if sales can occur ahead of maturity.

Indeed, as bank's assets are financed by its liabilities (e.g. deposits) and any changes in liabilities (on which a bank has only a limited influence) necessitate adjustments to the bank's assets, sales ahead of maturity are sometimes inevitable. Adjustments in the form of sales are nevertheless necessary to maintain a stable interest margin and even if these are frequent, the original objective, namely to generate contractual cash flows, remains the same. Furthermore, in compliance with the internal risk management, whose purpose is to identify risks at an early point in time, sales from an entity can be possible prior to an external downgrade;

- to *realise profit in the near term*, with the *Fair Value* measurement as the best criterium, irrespective of the frequency of sales, since exchanges are justified for trading purposes.

Another weakness of the accounting discipline concerns the possibility to resort to the "*bifurcation*", and covers both the *Business Model* concept and the appraisal of *values*.

About the *Business Model*, IFRS 9 allows applying the "*bifurcation*" only for financial liabilities (IASB 2010-B; IASB, 2012-A). Indeed, it does not require a separation of any embedded derivatives for *financial assets*: if the instrument has *exotic* features, it is likely to fail the contractual cash flow characteristics test, so it does not qualify for *Amortised Cost* accounting and has to be measured at *Fair Value Trough Profit and Loss* in its entirety, both components whose returns reflect just the time value of the money and the credit risk of the instrument and those components whose returns do not. As in the case, for example, of a financial asset with an equity conversion option: it "*would not have contractual cash flows that are solely payment of principal and interest and would be measured at FV-PL because the return on the instruments would not only reflect the time value of money and the credit risk of the instrument; rather, the return would be linked to the value of equity* (EFRAG, 2013-B)".

While for *financial liabilities*, if the host contract is not measured at fair value, the bifurcation of non-closely related embedded derivatives is required.

As for what concerns values, as they should express potential cash flows associated with financial instruments, it is desirable that carrying values of the host and of embedded parts reflect just their specific cash flow potentials. But, if the bifurcation is not granted, one component's value will be linked to the valuation criteria of the other component, so doing undermining the prediction of cash flows associated with the financial instrument in its entirety.

In a nutshell, the IASB decision causes asymmetry in accounting for financial assets and financial liabilities, contributing to increase complexity and the risk of not complying with the *Business Model'*s rationale; while bifurcation would enable to give information for the host financial asset in accordance with the Business Model, while providing assurance that risks arising from embedded derivatives are fairly accounted for in financial statements (EFRAG, 2013-B).

Moreover there are other critical points associated with IFRS 9 requirements:

- is missing an explicit reference to *Liquidity*. Even the definition of interest in IFRS 9 does not include the liquidity risk' component in the risk premium (EFRAG, 2013-B; EBA, 2013);
- despite the crisis of 2008, even in the Exposure Draft (IASB 2012-B) IAB has not been taken into account the notion of *illiquidity* of financial instruments, whereas it might be advisable do not measure illiquid instruments at Fair Value (European Association Co-operative Banks , 2013);
- IFRS 9 allows the possibility to choose between different options, so doing leaving room for accounting choices (EBA, 2012).

Given that the information contained in the Balance Sheet and the Cash Flow Statement serve some limitations, namely:

- differences between carrying and liquidity values;
- timing and economic maturity of certain items;
- unrecognized and unrecognizable items (such as reputation),

in order to complete a *Liquidity* analysis, it is expected that these gaps are filled by disclosure, that will be the subject of the next section.

### *3.3. IFRS 7 – Financial instruments: Disclosure*

Disclosure related to *Liquidity Risk* should provide all information useful to assess *Liquidity* profile of assets and liabilities, timing and amounts of future cash inflows and outflows - deriving form recognized and unrecognized items - and all other elements concerning internal metrics, if so, used to manage this kind of risk.

It is useful starting from three main questions:

1. *What* should be disclosed?
2. *How* should it be disclosed?
3. *When* is it necessary to disclose information derived from the first two points?

The first question is related to *elements to disclose*. Information should encompass, among other aspects, those concerning:

- *values* of financial instruments;
- *maturities* of financial instruments and *timing* of cash inflows and outflows.

Starting from *values*, as a matter of fact in some instances the *carrying value* could diverge from the *liquidity one*, depending on asset liquidation costs. These could derive from the liquidation time horizon, the asset type other than its fungibility, and the market structure (Culp, 2001). In the case of differences between carrying and liquidity values, deriving from haircuts or appreciations in liquidity value as compared to the carrying amount, a table of reconciliation and an explanation of causes could be useful to complement IFRS 7. Indeed, the latter is just focused on changes in the fair value attributable to alterations in the credit risk of financial instruments.

Another element to show could be the amount and the composition of *liquidity reserves* and the stock of assets that are available for liquidity purposes or to meet funding needs, free of regulatory, legal or contractual charges and that could, so, be used as collateral or pledged to secure liabilities (i.e. *unencumbered assets*). Concerning this point, IFRS 7 requires to disclose only fair values of collaterals and financial assets pledged to secure liabilities, but does not give many references concerning the amount of liquidity reserves detained for liquidity management and criteria used to identify the so called *High Quality Liquid Assets* (BCBS , 2013).

Disclosure concerning the management of *Liquidity Risk* should consider even *amount*s and *timing* of *future cash inflows and outflows*, which is *maturities* of financial instruments. It is useful to divide flows in time buckets. Movements in cash can be individuated according to contractual and/or expected maturity of on and off balance sheet items, depending on the estimated time of settlement, sale or transfer of them. Consideration of contingencies, commitments and unrecognized items, such as intangibles, could be useful in order to properly depict the *Liquidity* situation of the bank. Buckets could be built using different assumptions, both in a normal and in a stress period (*scenario analysis*). Moreover, in each bucket, an useful measure to be disclosed is the difference between assets giving origin to cash inflows and liabilities giving origin to cash outflows, in order to assess the net cash outflow for the specific period of time. Cash flows can be ascertained even using the bank's maturity estimates for certain balance sheet items. This is especially valid for demand or non-maturity deposits, loans with pre-payment options and structured notes. In this case, disclosure should explain assumptions used in the assessment of *behavioural liquidity characteristics* where these differ materially from the contractual maturity (FSB, 2012; FSB, 2013). Concerning this point, IFRS 7 states that an entity shall disclose a maturity analysis for financial liabilities, derivatives financial liabilities and financial assets, assessing an appropriate number of time bands. Cash flows for each category and band are based on contractual maturities, with no reference at expected or behavioural liquidity characteristics or off-balance sheet items. Definitively, the standard appears quite poor relative to these issues as it does not consider timing and economic maturity of certain liabilities (typically present in banks' financial statements) and cash flows associated to unrecognized items.

The second question is related to *presentation of information* identified in the previous section. While IFRS 7 requires to divide qualitative and quantitative information and to illustrate significant concentrations of *Liquidity Risk* in either its assets or its funding sources, a distinction between tables and explanations of figures contained in them could be a useful complement. Moreover, information about values and maturities could be disaggregated

according to different currencies, geographical areas, markets, counterparties and business lines, in order to assess the concentration of *Liquidity Risk* in each identified segment (CFA, 2013).

The last question is connected to *timing of the disclosure*. It is important to highlight that *Liquidity* (and *Liquidity Risk*) is not a static concept (ECB, 2006). It could change over time depending on macroeconomic and market conditions, other than entity changes. So, disclosure provided in financial statements may not be enough for investors to ascertain the *Liquidity Risk* of a bank. It could be the case to periodically integrate it by the use of some other documents, such as *Risk Reports*, *Operating and Financial Reviews*, *Management Commentaries* (Cole C. J., 2012). In each case it is important to use cross-references among different instruments used to disclose information about *Liquidity Risk* management.

## 4. Conclusions

The objective of this study has been to evaluate if financial reporting correctly reflects the risk exposure of a bank and its management. Indeed, accounting standards should give information useful to predict future cash flows. To this end it would be necessary that IASB first defines the concept of *Liquidity*, and then marks accounting principles in line with this.

One of the main weak points of the discipline is the lack of a framework (in terms of *Liquidity* concept) within which systematically build recognition, classification, measurement and disclosure recommendations.

This study tried to provide how, and to what extent, IFRS 9 contents meet *Liquidity Risk* aims of a bank, in terms of its assessment and monitoring. Concerning this issue, accounting standards partially missed to consider that the activity of a bank is carried out according to the business model pattern; and that values of assets and liabilities should predict future cash flows.

Even regarding disclosure references, it is possible to identify some deficiencies, as IFRS 7 does not require adequate information about differences, if so, between carrying and *Liquidity* values and about economic maturity.

Nevertheless *Liquidity* is an important issue to be dealt with, it has not been fully addressed in accounting standards.

For above-mentioned reasons, IASB should think about the chance to issue a standard specific for the banking sector. Indeed, the management of financial instruments while represents the core business in the latter, has just a secondary role in non-financial entities, so it is desirable to have a differential treatment. According to this view, the expected standard should pay more attention to the *Business Model* pattern, should incorporate forward looking elements, consider the scenario analysis (normal and stress conditions), contemplate behavioural liquidity characteristics associated to financial instruments, take into account the reconciliation between carrying and liquidity values of financial instruments.

In order to provide more concrete suggestions, it is necessary to deepen some of main related aspects of this issue: hedge accounting, impairment, business model. Moreover, the study could be integrated with the analysis of Basel III provisions concerning the *Liquidity Risk* issue.

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